

Title (en)

Portable biochip scanner using surface plasmon resonance

Title (de)

Tragbarer Biochip-Scanner unter Verwendung von Oberflächenplasmonenresonanz

Title (fr)

Scanner à biopuce portable utilisant une résonance de plasmon de surface

Publication

**EP 1684063 A1 20060726 (EN)**

Application

**EP 06000069 A 20060103**

Priority

KR 20050005023 A 20050119

Abstract (en)

A portable biochip scanner that enables multi-channel measurement includes a surface plasmon resonance unit (44) formed in a rotational disk-shape and an optical head (50) projecting light to the surface plasmon resonance unit (44) at an angle within a predetermined range and detecting light totally-reflected from the surface plasmon resonance unit (44). The optical head (50) is movable in a radial direction of the surface plasmon resonance unit (44). Preferably, the surface plasmon resonance unit (44) comprises a prism disk (42) formed in a ring-shape, and a micro-fluidic disk (43) coupled to a bottom of the prism disk (42). The micro-fluidic disk (42) being provided at a top surface with a plurality of micro-fluidic channels. Preferably, the optical head includes a micro-scanning mirror (52) projecting light from a light source (51) via a reflecting mirror (53) to the surface plasmon resonance unit (44).

IPC 8 full level

**B01L 3/00** (2006.01); **G01N 21/07** (2006.01); **G01N 21/27** (2006.01); **G01N 21/41** (2006.01); **G01N 21/55** (2006.01); **G01N 33/543** (2006.01); **G02B 26/08** (2006.01); **G11B 7/135** (2006.01)

CPC (source: EP KR US)

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